

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks.

Claims 1-25 and 36-44 are withdrawn. Thus, Claims 26-35 are pending, with Claims 26 and 29 being independent.

Claims 26 and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,024,525 to Yamanaka, hereinafter *Yamanaka*, in view of U.S. Application Publication No. 2001/0019691 to Boss, hereinafter *Boss*. Claims 29-31, 34 and 35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yamanaka* in view of *Boss*, and further in view of U.S. Patent No. 6,090,728 to Yenni et al., hereinafter *Yenni*. Claims 29, 32 and 33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yamanaka* in view of *Boss* and further in view of U.S. Application Publication No. 2002/0064437 to Kuramoto et al., hereinafter *Kuramoto*.

Figure 1 in the present application shows a book binding assembly. An apparatus 100 includes a platen 102 having a contact surface 104. The platen 102 is translatable in a direction 106. A first clamping body 108 has a surface 110 that is oriented parallel to and facing an opposing surface 112 of a second clamping body 114. During operation the opposing surfaces 110, 112 of the clamping bodies 108, 114 are oriented toward a planar surface of a sheet of the plural sheets that are to be bound. The opposing surfaces 110, 112 are translatable to provide force to the sheet of the plural sheets. Active heat sinks 120 are provided in thermal communication with at least one of the platen 102 and at least one of the clamping bodies 108, 114.

Claim 26 broadly encompasses that subject matter. Claim 26 recites, among other features, actively withdrawing heat from a backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet to below a glass transition temperature of the hot melt adhesive.

The Examiner acknowledges that *Yamanaka* does not disclose that subject matter, and relies on *Boss* for a disclosure of such. Specifically, the Examiner is relying on the heat sink 30 in *Boss* to assert that it was well known in the art to use active heat sinks to lower temperature, and that a skilled person would have found it obvious to make such a modification of the *Yamanaka* system to arrive at the claimed subject matter. As explained below, one skilled in the art would not have found the alleged modification to be obvious, and instead would have found that the cited documents teach away from the claimed subject matter.

Now turning to a recap of the previous arguments made in this case. Applicants argued that one skilled in the art would not have been motivated to use the relatively large heat sink 30 in *Boss* to modify *Yamanaka*, because the large size of heat sink 30 would be detrimental to *Yamanaka*'s disclosed device. In response to those arguments, the Examiner seemingly accepts that it would not have been obvious to incorporate the heat sink 30 of *Boss* into the system of *Yamanaka*. The Examiner merely states in part 7 of the most recent Official Action that an active heat sink is well known in the art, as evidenced by *Boss*. Thus, Applicants understand that the Examiner is not necessarily relying on the specific heat sink in *Boss* for a disclosure of such, but rather for the idea that a skilled person would have known to use an active heat sink to cool. It is with that preface that Applicants now address the rejection of Claim 26.

The real question that must be addressed is, when presented with *Yamanaka*, would a skilled person have been driven or directed to modify the *Yamanaka* device to include an active heat sink? The standard for this evaluation is set forth in the MPEP where it states that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." See MPEP 2143.01. Thus we are left to evaluate the suggestive power of *Yamanaka* and *Boss* with regard to an active heat sink in *Yamanaka*.

Attention is first directed to *Yamanaka*, which discloses a tape heating apparatus. Figure 1 in *Yamanaka* shows a tape heating apparatus 700B that has a heater 701 that is secured to a shift member 710 that is shiftable in directions. Side heaters 702, 703 are attached to end portions of a shift member 720 that is shiftable in directions perpendicular to the face of the bind tape T set of tape guides 704, 705. A skilled person would have recognized the scale and fine operation of the parts shown in *Yamanaka*, especially because it binds "books" which are of a standard size.

Boss discloses a different type of "book" binding device. Upon review of the figures in *Boss* it would have been apparent to a skilled person in the art that *Boss's* device is structurally much different than *Yamanaka's*. For example, where *Yamanaka* has three small parts that move in conjunction to hold/bind the sheets, *Boss* has one flat surface for supporting media sheets 10, a single press 26, and a heated platen 28. *Boss* only has two main moving parts that both move along the guide posts 31. One of the parts in *Boss* is a very large heat sink 30, which is in essence a large piece of metal. Page 2, paragraph [0017] in *Boss* states that: "heat

sink 30 will have a much greater effective thermal mass than heated platen 28 and heated platen 28 will be very thin to promote rapid heating and cooling." It is also disclosed that the heat sink 30 may be of the active variety, but there is no indication that the size should be any smaller. In essence, the device in *Boss* is a much less intricate and finely tuned instrument with much bulkier simpler parts and operation.

If you imagine being presented with *Yamanaka* in view of *Boss*, you would understand that the makers of *Yamanaka* had the knowledge of thermodynamics and technical know how to apply a heat sink to their device, but that they didn't. You would wonder if there was a reason that they didn't and would reason that there was likely a reason for such omission, e.g., difficulties associated with size constraints, thermodynamic constraints, or a combination thereof. For example, you may think that a heat sink large enough to adequately cool is too big or bulky for successful application to *Yamanaka's* device. Your idea would be bolstered by *Boss*, because the heat sink 30 in *Boss* is used in connection with binding similar style sheets as *Yamanaka* but is too big and bulky to be applied to the device in *Yamanaka*. Therefore, you would understand that a device similar to *Boss*, as opposed to *Yamanaka*, is required to successfully use an active heat sink to achieve proper cooling. Therefore, you would not have expected success from modifying *Yamanaka* to include an active heat sink and would not have been directed to include an active heat sink in *Yamanaka*.

In sum, it is not argued that a skilled person would not have understood how a heat sink works. Rather, it is submitted that when presented with the disclosures in *Yamanaka* and *Boss*, the skilled person would not have had any direction or suggestion, in view of those disclosures to add an active heat sink to the system of

Yamanaka, nor do the documents teach or suggest how features described in the two documents would have been combined. Also, one would not have expected any success from such a modification to the system of *Yamanaka*, as the cited documents teach that an active heat sink would not have worked in devices like those described by *Yamanaka*.

For at least those reasons, Claim 26 is not obvious and is allowable.

Claims 27 and 28 are allowable at least by virtue of their dependence from Claim 26.

Claim 29 is rejected as being unpatentable over *Yamanaka* in view of *Boss* and further in view of *Yenni*. Claim 29 is also rejected as being unpatentable over *Yamanaka* in view of *Boss* and further in view of *Kuramoto*.

Claim 29 is amended to additionally recite subject matter related to an active heat sink. Thus, Claim 29 recites, among other features, actively absorbing heat from a hot melt adhesive of the backed hot melt adhesive sheet into at least a portion of the clamping jaw with an active heat sink.

As noted above with regard to Claim 26, neither *Yamanaka* nor *Boss*, alone or in combination, disclose an active heat sink, in the context of Claims 26 or 29. Also, neither *Yenni* nor *Kiramoto* is relied upon for, or discloses, subject matter related to an active heat sink.

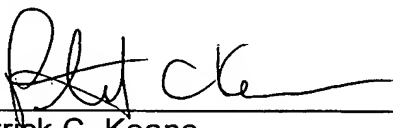
All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the application is in condition for allowance and a Notice of Allowance is respectfully solicited.

Should any questions arise in connection with this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: September 15, 2006

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